

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-020518**Date Inspected:** 10-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. LI YAN HUA**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segment**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector Santhosh Ramakrishna Pillai was present during the times noted above for observations relative to fabrication work of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China.

This QA inspector randomly observed the following work:

**1. INPROCESS:**

Orthotropic Box Girder (OBG) at Bay-14 Area:

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the vertical shear plate to anchorage plate weld joint located on 14E at bike path side. The weld is designated as SEG3019BB-047. The welder is identified as 066763. ZPMC QC Mr. GUO SHI HUI was onsite monitoring the welding variables. The welding variables were recorded at, current 271.8 Amps, Voltage 26.8 Volts. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2233-ESAB.

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the vertical shear plate to anchorage plate weld joint located on 14E at bike path side. The weld is designated as SEG3019BB-091. The welder is identified as 067087. ZPMC QC Mr. GUO SHI HUI was onsite monitoring the welding variables. The welding variables were recorded at, current 267.1 Amps, Voltage 26.2 Volts. The inprocess

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Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2233-ESAB. Further weld detail mention in attached picture.

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the anchorage plate to anchorage plate splice weld joint located on 14E. The weld is designated as SEG3019AP-004. The welder is identified as 052696. ZPMC QC Mr. GUO SHI HUI was onsite monitoring the welding variables. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2231-ESAB.

ZPMC welding personnel performing Submerge Arc Welding of Complete Joint Penetration welds joining the anchorage plate to anchorage plate splice weld joint located on 14E. The weld is designated as SEG3019AP-004. The welder is identified as 215993. ZPMC QC Mr. GUO SHI HUI was onsite monitoring the welding variables. The inprocess Submerge Arc Welding appears to be progressing in compliance with WPS-B-T-2221-B-L2c-S-2.

ZPMC welding personnel performing Shielded Metal Arc Welding of Repair weld for the floor beam (FL-3) to side plate weld joint located on 13AE at Panel Point PP 119-1500. The weld is designated as SEG3007AD-025. The welder is identified as 044772. ZPMC QC Mr. LU LI QING was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1. The weld repair report number is named as WR-19453.

ZPMC welding personnel performing Shielded Metal Arc Welding of Repair weld for the floor beam (FL-3) to side plate weld joint located on 13AE at Panel Point PP 119-1500. The weld is designated as SEG3007AD-027. The welder is identified as 037723. ZPMC QC Mr. LU LI QING was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1. The weld repair report number is named as WR-19451.

ZPMC welding personnel performing Shielded Metal Arc Welding of Repair weld for the I-Rib to floor beam weld joint for bottom plate located on 13AE at Panel Point (PP-118). The weld is designated as SEG3007P-220. The welder is identified as 037743. ZPMC QC Mr. LU LI QING was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-345-SMAW- 3G (3F)-FCM-Repair-1. The weld repair report number is named as WR-20134.

### 2. NDT:

#### Magnetic Particle Testing (MT):

MT carried out as per the ZPMC submitted Notification No 08323.

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area that has been previously tested and accepted by ZPMC MT technicians. This QA Inspector generated a TL-6028 MT report on this date. The members are identified as corner joint located on 13AE at Panel Point (PP-119 to PP-119-1500). The weld designation numbers is as follows: SEG3007H-104, 105, 088, 089, 084, 085, SEG3007AY-050, 052, 049, 047, 038, 039.

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Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

No relevant conversations were reported on this date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Pillai,Santosh	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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